Background for Field Identification of Minerals

Standard Course of Study Targeted Goals and Objectives

1.02: Design and conduct scientific investigations to answer questions about the earth and environmental sciences.

- Create testable hypotheses.
- Identify variables.
- Use a control or comparison group when appropriate.
- Select and use appropriate measurement tools.
- Collect and record data.
- Analyze and interpret data.
- Communicate findings.

1.04 Apply safety procedures in the laboratory and in field studies:

Safely manipulate materials and equipment needed for scientific investigations

2.01: Analyze the dependence of the physical properties of minerals on the arrangement and bonding of the atoms.

Introduction to the Teacher

Within the context of our natural environment, the earth, elements and compounds that are formed naturally are called minerals and mixtures of minerals are called rocks. Because minerals are elements or compounds, they possess identifiable characteristics called physical properties that are unique to each individual mineral.

If you do not have the required minerals, adapt the lab according to minerals at hand.

Time required: one ninety-minute lab period

Safety Considerations:

Remind students not to use samples as projectiles.

Remind students to place the glass and streak plate on the table to use. Do not experiment with the glass or streak plate in their hands.

References:

This activity was submitted by Dick Hilliard of North Henderson High School, Hendersonville, NC.